



# PRECISION MEDICINE INNOVATION CO-LABORATORY (PMedIC)

Recent improvements in human health have been driven by scientific breakthroughs that incorporate new medical technologies and emerging biological knowledge, leading to improved treatments, novel clinical trials, and improved patient outcomes.

We now understand that individual differences in genes and proteins can allow a disease to develop, grow, and spread in one person but not another, and also dictate how individuals respond to treatments. This insight has produced a new discipline, precision medicine, in which doctors integrate multiple measurements on each patient, including their genes, proteins and medical images, to help select prevention and treatment strategies that are tailored to each individual.

Oregon Health & Science University and the U.S. Department of Energy's Pacific Northwest National Laboratory launched the Precision Medicine Innovation Co-Laboratory, or PMedIC, in February 2018. PMedIC combines the passion, resources, and expertise of the two institutions to advance the science and practice of precision medicine. PMedIC brings together advanced computational and measurement technologies with nationally recognized research.

## THE PROMISE OF PRECISION MEDICINE

Precision medicine has led to new discoveries and treatments, but it's still an emerging field with many unknowns. PMedIC aims to generate, interpret, and apply multidimensional patient data such as genetic, proteomic, and metabolic profiles, and integrate this information with imaging and clinical results, to transform precision medicine. New insights from PMedIC's approach will inform clinical trials, leading to more customized treatments and better patient outcomes.

## COMBINING RESOURCES FOR GREATER IMPACT

PMedIC offers collaborative research and educational experiences for staff, faculty, clinicians, and students at the campuses of both institutions. Participants may tap into dual appointments as well as experiences in

fundamental and applied precision medicine, including clinical trials.

With the collective strengths of OHSU and PNNL, PMedIC will train a generation of scientists fluent in all aspects of precision medicine, to improve human health.

## CONTACT

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